IN THE CLAIMS

The following claim set replaces all prior versions, and listings, of claims in the application:

1-11 (Canceled)

12. (Presently Amended) A method of making a melt-blown tubular core element comprising melt-blowing continuous length, randomly intermingled thermoplastic fibers toward an axially rotating mandrel and allowing ~~such that~~ multiple adjacent ones of said fibers to coalesce substantially side-by-side to one another along at least lengthwise portions of their respective peripheral surfaces to form a multiplicity of continuous length, substantially planar ribbon-shaped thermoplastic cords, and depositing said cords onto the mandrel to form a tubular non-woven mass thereof which defines an open, non-filtering matrix such that said cords are thermally bonded one to another at respective crossing points sufficient to impart axial and radial rigidity to the core element.

13. (Original) The method of claim 12, wherein said mandrel includes surface perforations, and wherein the method further comprises the step of directing a pressurized fluid outwardly through the surface perforations.

14. (Original) The method of claim 12, further comprising bringing said cords deposited onto the mandrel into contact with a roller.

15. (Original) The method of claim 14, wherein said step of melt-blowing continuous length thermoplastic fibers includes issuing streams of molten thermoplastic material through orifices of a die to form the continuous length thermoplastic fibers, and positioning the die in upstream misregistration with respect to the roller.

16. (Original) The method of claim 12, wherein said forming step is practiced such that the cords have a nominal cross-sectional diameter of between about 100 to about 1500 μm.

17. (Original) The method of claim 16, wherein said forming step is practiced such that the cords have a nominal cross-sectional diameter of between about 200 to about 900 μm.

18. (Original) The method of claim 12, wherein said forming step is practiced such that the matrix of non-woven cords has a mean porosity of greater than about 30%.

19. (Original) The method of claim 18, wherein said forming step is practiced such that the matrix of non-woven cords has a mean porosity of greater than about 50%.

20. (Original) The method of claim 12, wherein said forming step is practiced such that the matrix of non-woven cords has a mean porosity of between about 30% to about 80%.

21. (Original) The method of claim 20, wherein said forming step is practiced such that the matrix of non-woven cords has a mean porosity of between about 50% to about 60%.

22. (Original) The method of claim 12, wherein said forming step is practiced such that the non-woven cords are thermally bonded to one another at respective crossing locations.

23. (Original) The method of claim 12, wherein said forming step further comprises extruding a molten thermoplastic polymer selected from the group consisting of polyolefins, polyamides, polyesters, acetals, fluoropolymers, polyphenylene sulfides,

biodegradable polymers, liquid crystal polymers, polyetherether ketones, polystyrenes, polymers of vinylidene monomers and mixtures thereof.

24. (Original) A method for the continuous production of filter cartridges comprising:

(a) forming an axially elongate filter cartridge preform comprised of an annular mass of non-woven, melt-blown, continuous length filtration fibers by continuously rotating and axially translating the core element relative to a melt-blowing die assembly;

(b) cooling the preform by continuously axially translating the preform through a cooling sub-system wherein cooling air is brought into contact therewith; and then

(c) severing a filter cartridge of predetermined length from a downstream section of the cooled preform.

25. (Original) The method of claim 24, wherein prior to step (a), there is practiced the step of (1) forming a core element onto which the filter fibers are to be deposited by melt-blowing continuous length thermoplastic core fibers toward an axially rotating mandrel such multiple adjacent ones of said core fibers coalesce substantially side-by-side to one another along at least lengthwise portions of their respective peripheral surfaces to form a multiplicity of continuous length, thermoplastic cords, and (2) depositing said cords onto the mandrel to form the core element comprised of a tubular non-woven mass of said cords.

26. (Original) The method of claim 24, wherein step (c) comprises the steps of simultaneously moving a cutting device parallel and perpendicular relative to the preform concurrently with the rotation and axial translation of the preform so that the cutting device severs the preform at a selected location to thereby obtain a filter cartridge of predetermined length.

27. (Original) The method of claim 24 or 26, further comprising the step of (d) transferring the filter cartridge to a downstream finishing station.

28. (Original) The method of claim 27, wherein step (d) includes the step of coaxially positioning the filter cartridge between a pair of ultrasonic horns.

29. (Original) The method of claim 28, wherein step (d) includes the step of bringing the ultrasonic horns into contact with respective ends of the filter cartridge and operating the ultrasonic horns to finish the respective ends.

30. (Original) The method of claim 29, which further comprises the step of releasing the end-finished filter cartridge from the ultrasonic horns and transferring the end-finished filter cartridge to a downstream location.

31. (Original) A method for the continuous production of filter cartridges comprising the steps of:

(a) forming an axially elongate filter cartridge preform comprised of an annular mass of non-woven, melt-blown, continuous length filtration fibers; and

(b) severing a filter cartridge of predetermined length from a downstream section of the preform by simultaneously moving a cutting device parallel and perpendicular relative to the preform concurrently with the rotation and axial translation of the preform so that the cutting device severs the preform at a selected location to thereby obtain a filter cartridge of predetermined length.

32. (Original) The method of claim 31, wherein prior to step (b) there is practiced the step of (c) cooling the preform.

33. (Original) The method of claim 31, wherein step (c) includes the step of determining the axial translation rate of the preform, and thereafter controllably moving the cutting device parallel to the axial translation of the preform at substantially the same axial translation rate.

34. (Original) The method of claim 33, wherein said step of determining the axial translation rate of the preform includes causing a terminal end of the preform to contact a coaxially positioned sensor head, allowing the sensor head to be displaced axially concurrently with the axially translating preform, and measuring rate of displacement of the sensor head which is indicative of the axial translation rate of the preform.

35. (Original) The method of claim 31, wherein prior to step (b), there is practiced the step of (c) stabilizing the preform against lateral movement.

36. (Original) The method of claim 35, wherein step (c) is practiced by the step of moving a stabilizer into contact with the preform upstream of the cutting device.

37. (Original) The method of claim 31, which further comprises the step of (c) transferring the filter cartridge to a downstream finishing station.

38. (Original) The method of claim 37, wherein step (c) includes the step of coaxially positioning the filter cartridge between a pair of ultrasonic horns.

39. (Original) The method of claim 38, wherein step (c) includes the step of bringing the ultrasonic horns into contact with respective ends of the filter cartridge and operating the ultrasonic horns to finish the respective ends.

40. (Original) The method of claim 39, which further comprises the step of releasing the end-finished filter cartridge from the ultrasonic horns and transferring the end-finished filter cartridge to a downstream location.

41. (Original) A method for the continuous production of filter cartridges comprising the steps of:

(a) forming an axially elongate filter cartridge preform comprised of an annular mass of non-woven, melt-blown, continuous length filtration fibers;

(b) severing a filter cartridge of predetermined length from a downstream section of the preform; and

(c) coaxially positioning the filter cartridge between a pair of ultrasonic horns and operating the ultrasonic horns so as to finish opposed terminal ends of the filter cartridge.

42. (Original) The method of claim 41, wherein prior to step (b), there is practiced the step of cooling the preform.

43. (Original) The method of claim 41, wherein said preform is translated at a predetermined axial rate in a downstream direction, and wherein step (b) includes moving a cutting device parallel to the preform at substantially the same axial translation rate simultaneously while severing the preform to obtain the filter cartridge.

44. (Original) The method of claim 41, wherein step (c) includes the step of gripping the filter cartridge with transfer arm, and thereafter swinging the transfer arm and the filter cartridge gripped so as to transfer the filter cartridge into coaxial alignment between the ultrasonic horns.

45-63 (Canceled)